BOSTON UNIVERSITY

GRADUATE JOURNAL

A Review of Current Graduate and Research Activities

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BOSTON UNIVERSITY

GRADUATE JOURNAL

A Review of Current Graduate and Research Activities

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A Challenge to the Acutest Intellects Among Research Scientists

DANIEL L. MARSH, *Chancellor of Boston University*

In Dean Duncan E. Macdonald's article, "Why Research — What Research — How Research," which appeared in the December issue of the BOSTON UNIVERSITY GRADUATE JOURNAL, he pointed out that "our work in socio-psychological fields has created a national consciousness that results in movements directed toward seeking optimum utilization of the human being in our society. Yet our problem is that all programs of a progressive society are interim — except the mores upon which that society is founded — and the continued progress of that society is based upon and developed from the new values established through research." His whole article is well worth reading, but let me stop here to deplore the fact that technological invention has outrun social invention. Mankind has not been able to distinguish between real progress and progress in *things;* that is, between moral progress and progress in gadgets and conveniences.

Much that passes for research is not research at all, but simply reclassification of familiar knowledge. Furthermore, some real research is of no human use. For instance, what would be the value in discovering through historical research what color of suspenders, if any, were worn by Macbeth? And what difference would it make if someone should find out through scientific research the length of the antennae on the head of the Paleozoic cockroach? But let me suggest a subject for research in psychology and sociology, in history and antiquities, in economics and government which should challenge the keenest intellects to be found in our universities. That subject is the real cause of war — not the alleged causes of the various wars of history, but the real cause of war, and how to remove the cause.

One does not need to be a Pacifist (which I am not) to condemn war as the summation of all villainies; as organized insanity; as the greatest social sin of history; as the recrudescence of the jungle. Wise old Benjamin Franklin, in a letter to Quincy, declared that "there never was a good war nor a bad peace."

Man has made unbelievable progress in his dominion over the earth. The mind of man has wrought mar-

vels and miracles in discovering and comprehending the laws of nature, — which laws can be understood only because they are the product of mind, the Mind which we call God. Thus man is able to understand and interpret the musical score that we call the cosmos. He has been so successful in bringing perceived particulars under appropriate concepts that he can talk authoritatively about the composition and movements of the stars that are millions of light years distant from our earth. By patient research and the power to render its findings intelligible, man has brought fulfillment to Tennyson's vision in "Locksley Hall" when he

> "Saw the heavens filled with commerce, argosies of magic sails,
> Pilots of the purple twilight, dropping down with costly bales,"

and he has released the unspeakable power of the atom. Through undiscourageable research in the fields of medicine, man has conquered the pestilence that stalks in darkness. But the tragical thing is that the most horrible pestilence of all time, war, is still the terror by night, its missiles still fly by day, it is still the destruction that wastes at noonday, and though a thousand will fall at the side of research and ten thousand at its right hand, yet no science of any name has been able, through research, or otherwise, to point the road to universal and permanent peace.

Why has man who has been sufficiently intelligent to make so much progress in other fields been so utterly stupid and inadequate in the field of human relations? With all his boasted intelligence and progress, he is, at this point, no better than wild dumb animals that "nourish a blind life within the brain." Perhaps our research scientist will start by studying wild animals. Have you seen Walt Disney's amazing motion pictures portraying the life of insects, and beavers, and bear, and water birds? Have you seen the colored motion picture of the "Sea Around Us"? If so, you have doubtless noted that the one common denominator is that all the creatures are forever eating, and they are fighting among themselves about things to eat. I am not a Freudian psychologist, but I am of the opinion that any research that would look toward showing mankind the way to settle disputes without resorting to the rude arbitrament of atomic bombs would have to take account of the fact that the lower animals apparently fight more about things they want to eat than about anything else. Certain of the male of the species fight to the death at the rutting season; but there is no such wholesale and universal fighting over anything else as over food. Perhaps it is not so much appetite as an inarticulate and unconscious fear that they might starve if they cannot gobble up everything in sight.

Edmund Burke, in his "Vindication of Natural Society," says that "a meditation on the conduct of political societies made old Hobbes imagine that war was the state of nature," and Jonathan Swift remarks that "Hobbes really proves that every creature lives in a state of war by nature." Machiavelli, using the word "prince" to mean every state or government, said that "war should be the only study of a prince." Cowper countered by saying that war was "a game, which, were their subjects wise, kings would not play at." I suppose Cowper means that if the common people were wise, they would not fight. Is that not true? If the common people of Germany and France and Britain, of Italy and Russia and the United States, and all the rest of the peoples of the earth were really wise — *all*

of them really wise — would their governments play at war?

Much effort is put forth to make war humane. If ever there was anything grotesque undertaken by the children of men, it is the attempt to make war humane. It cannot be done! War is brutal and brutalizing. The only logic there is to war is the death of your opponent and the seizure or destruction of his property. Whenever one nation uses a new implement of death and destruction, the other nations deck themselves in robes of self-righteousness to denounce the army using the new device, but as soon as they know how, or can get it, they themselves use it. Would research show that one way to have the nations stop all war would be for all of them frankly to say that they have no intention of trying to make war humane, that they are going to make it as terrible as possible, killing innocent and guilty alike, wiping out all the peoples of the earth except themselves, — seeming to forget that each nation can now be wiped out by those whom they are planning to wipe out!

Sallust, the Roman historian who was born some eighty years before Jesus was born, called his readers' attention to the fact that "it is always easy to begin a war, but very difficult to stop one, since its beginning and ending are not under the control of the same man. Anyone, even a coward, can commence a war, but it can be brought to an end only with the consent of the victors."

Apparently the only method that mankind trusts for preventing war is preparation for war. In this, they show that they have learned nothing from history; for preparedness for war has always eventuated in war. History shows no exception to this fact. Militarism is not a cure for war. Woodrow Wilson, in his speech at West Point in June, 1916, said: "Militarism does not consist in the existence of any army, nor even in the existence of a very great army. Militarism is a spirit. It is a point of view. It is a system. It is a purpose. The purpose of militarism is to use armies for aggression." Wilson was one of the greatest historians America has ever produced. His words deserve careful consideration. One might add to what Wilson said the conviction of Bernard Shaw, namely: that "military service produces moral imbecility."

Here is the subject I present for research, for the solution of a problem which the experience and history of mankind would seem to indicate is more difficult than the quest of nuclear fission. It is the intellectual, the patient, the persistent, the undiscourageable, and, let us pray, finally successful research for the way in which the inhabitants of this earth can live together without trying to push each other off the planet!

This project is worthy of a subvention by one of the great foundations, or by the United States Government, or by the United Nations. I understand that the United States appropriated two billion dollars for the research that resulted in the atomic bomb. What I have proposed above is much less vague and much more valuable than the quest for the atomic bomb was when research for it was started. Let not the vagueness that generally enshrouds the quest for the permanent and universal eradication of war, nor the difficulty in precisely focusing the proper scientific knowledge and method upon the subject, estop us from finding the solution to this most pressing problem confronting human society. As Shakespeare makes Brutus say to Cassius in *Julius Caesar*, "Till then, my noble friend, chew upon this."

Notes on the African Research and Study Program

FRANK L. SWEETSER, JR., *Associate Professor of Sociology*

Staff Member Appointed

Daniel F. McCall, CLA 1949 and Ph.D. candidate at Columbia University, has been appointed a member of the staff of the African Research and Studies Program to collaborate with Professor Brown in planning and research during the Second Semester, 1953-1954. During the next academic year, 1954-1955, Mr. McCall will also serve as Instructor in Anthropology, and will offer a course in "Peoples and Cultures of Africa" in the College of Liberal Arts and the Graduate School. Mr. McCall has just returned from a two-year period of teaching and research in Africa, where he carried on a study of urbanization in Koforidua, the Gold Coast, under a Social Science Research Council grant, and served as Instructor in Sociology at the University of Liberia, Monrovia, Liberia. Mr. McCall is married, and has one child, who was born in Liberia.

Expansion of Quarters

The Program has now expanded its facilities to include the entire first floor of 154 Bay State Road. This expansion adds a spacious room which will serve as a reading room for students in the field who wish to consult the wide selection of books in Dr. Brown's personal library, and provides desk space for two members of the staff. From time to time in the future, exhibits relating to the work of the program will be on display here.

Visit to West Africa

Professor St. Clair Drake, Director of the African Studies Program at Roosevelt College, who has been participating in the Boston University Program during the past semester, is now visiting West Africa, where he expects to do some teaching and some preliminary research work during the next several months.

Book Review

Miss Ida Mae Silverman, A.M. candidate in Sociology, is the author of a review of Horace Miner's *The Primitive City of Timbuctoo*, which appears on page 87 of this issue of the GRADUATE JOURNAL.

Need for Increased Graduate Enrollments

The educators [attending the fortieth annual conference of the Association of American Colleges in Cincinnati, Ohio, January, 1954,] were worried at the sharp drop in graduate students, caused in part by the normal decline in college enrollment, and in part by the drafting of men on the graduate level. It was brought out that in some instances men who were completing their graduate work were drafted for military service before completing their course of studies.

The nation is sorely in need of experts in the sciences and technical fields. Unless the graduate rolls increase sharply, the pinch in trained men will be felt before the decade is over. This is particularly true in the field of teaching, and in the physical sciences. Unless more attention is paid to the enrollment on the graduate level the nation will suffer in both civilian and military fields. — Benjamin Fine, *New York Times*, January 17, 1954

Student Research

Miss Ida Mae Silverman, a graduate of the Boston University College of Liberal Arts in 1953 and now a candidate for the A.M. degree in Sociology in the Graduate School, prepared the book-review printed below in connection with her sociological studies dealing with Africa.

The Primitive City of Timbuctoo. By HORACE MINER. Princeton, N. J.: Princeton University Press. 1953. 297 pp.

Horace Miner spent seven months during 1940 in residence in the city of Timbuctoo in order to do research under the auspices of the Social Science Research Council. His research was designed basically to test the hypothesis of Robert Redfield that any city, defined by Louis Wirth as "a relatively large, dense and permanent settlement of socially heterogeneous individuals," would exhibit urban traits, i.e., social disorganization, secularization, and individualization.

Timbuctoo has a population of approximately 6000 persons dwelling within one square mile and consisting of three distinct cultural groups: the Arabs speaking Arabic, the Songhoi speaking Songhoi, and the Tuareg speaking Temajegh. Thus according to definition Timbuctoo is a city.

Dr. Miner in the bulk of his report describes culturally "distinct" and acculturative factors in each of these groups. That is, he undertook an ethnographic study of the kinship structure, rites of passage, religion and magic, ecology, economics, and political structure. However, as he freely acknowledges, in his selection of material Dr. Miner emphasized those incidents of conflict which tend to support his hypothesis.

The method of gathering data was primarily that of observation corroborated by interviews with French-speaking natives and with others through interpreters. Admittedly this is not the most satisfactory procedure, but these were the limitations imposed by the situation. A community inaccessible to Europeans prior to French occupation, no member of which speaks all three languages, harboring intense suspicion and hostility toward foreigners is clearly difficult to observe. Considering these difficulties, Dr. Miner's work is a valuable contribution to our knowledge of a city structure developed outside of Western influence.

What was intended however to close some of the gaps in folk-urban theory makes these gaps larger in fact. Dr. Miner proves his hypothesis that disorganization and conflict are present in Timbuctoo, but he fails to distinguish whether this "urbanization" is related to the "City" situation or to the multicultural and acculturative factors associated with Timbuctoo's ethnic heterogeneity. Redfield and thus Miner appear to assume that having defined "folk traits," they may define "urban traits" as their opposite: hence what is not "folk" must either be "urban" or lie somewhere on a "continuum" between the two extremes. Timbuctoo seemingly does not fit anywhere along this continuum. The structure of the city is still fundamentally a kinship structure, contrary to urban theory, though there is inconsistency in this structure normatively and behavioristically. A degree of city-wide solidarity is maintained by the Islamic religion, although only once in its history has Timbuctoo united in an attempt to defend itself against conquest. The community is isolated,

folklike, in that those with whom the inhabitants come in contact are not incorporated into the city's life. Interpersonal relations are impersonal, but so are those of some non-urban peoples. Social mobility in Timbuctoo is not so much that of individuals as of a whole class, for instance, the former Gabibi slave class assuming the status and role of the noble Alfa and Arma economically. The fundamental ethos of the city is derived from the "Market Culture": competition for wealth and hence status. The profit motive permeates all phases of life in Timbuctoo.

In any society, folk or urban, where there is competition, by definition there is bound to be social disorganization and impersonal relationships. Theoretically, if we equate the industrialization and technology of Western civilization — which are competitively organized — with urban traits, it follows that cities in contact with the West will exhibit these traits. But since various preliterate and distinctly non-urban societies such as the Dobuans described by R. F. Fortune* or the Indians of Guatemala, reported by Sol Tax,** also are characterized by social disorganization and impersonal relationships, it becomes difficult, if not impossible, to locate Timbuctoo anywhere on a continuum between a pure folk and a pure (modern Western) urban pole. Timbuctoo is a city, by Wirth's criteria; but it is not a modern Western city — indeed, it was selected for study because it had developed outside the orbit of Western civilization — and the fact that it is characterized in part by disorganization and impersonal relations seems to be explained largely by ethnic diversity and the dominance of a commercial market structure through which many inter-ethnic relations are mediated. At best we might say that the city situation accelerates and intensifies conflicts arising out of an acculturative process. In view of this, Miner's study suggests that the concept of a folk-urban continuum needs to be critically reassessed: it seems to this reviewer that the effort of Redfield and his followers to expand the concept so as to accommodate all types of communities somewhere along such a scale of quantitative variation may be less realistic than the effort to classify communities (or societies) qualitatively in some such terms as those suggested by Wilson and Kolb in their *Sociological Analysis*, where they distinguish among "communal societies" — very much like folk societies; "complex-communal" societies — such as the Medieval town, and perhaps, Timbuctoo; and associational societies — like our modern Western urban-industrial society.

Dr. Miner set out to "test an hypothesis, not prove a theory," and to this extent he has succeeded. What theoretical implications he tries to draw are not consistent with either the data found by him or that of other researchers in other areas. But apart from the theoretical difficulties, the study of Timbuctoo is a valuable addition to the literature on Africa and the especially deficient material on non-Western city structure. While providing some of the building blocks of future conceptual schemas, it also raises many questions to which future investigations may provide answers.

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*R. F. Fortune, *Sorcerers of Dobu*, 1932.

**Sol Tax, "The Municipios of the Midwestern Highlands of Guatemala," *American Anthropologist*, 1937.

Pioneering with the Motion Picture in Biological Research

BRENTON R. LUTZ, *Professor of Biology*

THE two great developments of the twentieth century which are changing the social, economic, and intellectual lives of men are the motor car and the motion picture with its lusty offspring, television. The motion picture is possible only because of a biological phenomenon associated with vision, and called "after-image." A negative "after-image" is commonly seen after looking at a brightly colored object or a very intense light. With ordinary intensities, positive "after-images" are formed. This principle was recognized in 1824 by Roget, who presented a paper before the Royal Society of London on "The persistence of vision with regard to moving objects."

No further advance occurred in the development of motion pictures, except the devising of methods for viewing a series of drawings or still photographs representing successive phases of motion, until 1889, when Edison made use of the new, flexible nitrocellulose film produced by Eastman. To be sure, Heyl in 1870 had made use of a ratchet and prawl mechanism for giving each image a momentary rest on the screen. This, of course, gave time for the retina to form an image and allow the previous picture still persisting in consciousness to be associated with the next phase of motion. The ratchet and prawl mechanism was independently rediscovered by Edison (1889), who exposed to the eye 48 pictures per second by this device. The width of the film and the arrangement of the sprocket holes to drive the film, as adopted by Edison, are standard today. The Lumières in 1895 reduced the number of exposures to 16 "frames" a second, a rate now accepted for silent cinephotography. When the film is projected at the same rate, the actual speed of motion is accurately shown as it originally occurred.

The advantages of the motion picture are now generally appreciated. Besides indicating the progress of motion, it permits a large number of persons to view simultaneously what normally only one person could see at a time. This is especially helpful when objects are seen through a microscope. It also makes a record of the procedure for later careful analysis of details, which are frequently missed when objects move with speed and complexity. Such a study is often aided by a modification of the rate, either of the original photography or the projection. The value of "slow motion" to reduce the speed for easy observation of rapid events is well known. Similarly, the principle of "time-lapse" photography to make visible that motion which is normally imperceptible is now generally understood.

QUITE naturally cinephotography was accepted by most educators and many workers in science, industry, and sports. In teaching, recording a new process in research, and in the presentation of a scientific paper, the motion picture has a unique place. One writer states, "The motion picture tells its story directly, simply, quickly and elementally, not in words but in pictorial pantomime." The educational possibilities were quickly realized. Between 1915 and 1925, seven companies were formed to make and distribute educational films for

schools and other educational organizations. Among the scientists, the anatomists and surgeons saw at once that the motion picture could become a valuable device for recording and teaching. Strangely, in the field where motion is paramount, namely physiology, research workers have been slow to accept this new tool, although other biologists interested in living organisms have used motion pictures extensively, especially since color has been available. The aura of the commonplace engendered by the use of motion pictures in the entertainment world, the burlesquing of life's foibles by the animated cartoon, and the unedited, untitled, unabridged, and often unappealing films of the amateur have been factors in preventing early acceptance and use by the "intelligentsia." The same attitude toward television now exists. Only since the Second World War have the committees of the American Physiological Society provided adequate facilities for showing motion pictures at their scientific sessions.

For the imaginative and intelligent person, the possibilities in the future development of the motion picture, and especially color television, in the field of communications with reference to education and research are tremendous. To ignore the use of such means is to deny to large numbers of persons the basic method of education, namely learning through vision. Educators should be interested to know that the Library of Congress has now admitted the motion picture to the exclusive field of historical documentation, which includes textbooks, monographs, and other authoritative printed materials.

The following cataloguing agencies have official listings of scientific films, and in some cases indicate certification: the U. S. Information Agency; the American College of Surgeons; the Academy-International of Medicine; the Review Committee of the American Association of Anatomists and the Wistar Institute; the Library of Congress; and the Medical Audio-Visual Institute of the Association of American Medical Colleges.

THE Department of Biology in Boston University has been a pioneer in the use of the motion picture for recording the results of research procedures and in presenting research findings at scientific sessions. *The Control of Small Blood Vessels*, 1940, a one reel 16 mm monochrome, edited and fully titled, was one of the first motion pictures to serve as a complete scientific paper. While it was never intended for teaching purposes in the usual sense, it was widely accepted both for rental and sale, until 150 copies are now in the possession of educational institutions in this country and Europe. The reasons are obvious. It was the first film to show the activities of small blood vessels as seen through the high power of the microscope. Certain new features were shown: a) the stimulating micro-electrode, the nerve fiber being stimulated, and the reacting blood vessels were seen at one time in the field of the microscope: b) it demonstrated the principle of the motor-unit as applied to smooth muscle in blood vessels, by showing that they always respond to stimulation of their controlling nerve fibers in a definite and constant pattern: c) it demonstrated the existence of vascular sphincters at the capillary origins, which could ration the blood to local areas: d) and it showed clearly the non-contractibility of the capillary wall, a long-standing controversial matter.

Our first film was made possible by the use of the transparent retrolingual membrane of the frog, originally used in the first demonstration of the "all or nothing" principle in skeletal muscle by Dr. Frederick

H. Pratt of our School of Medicine. The author adapted Dr. Pratt's preparation for blood vessel study, using a beam-splitting prism on the microscope, a powerful zirconium lamp, a micromanipulator, and a motion picture camera. The first records of small blood vessel activity summarized in our film were made with this equipment.

SINCE 1945, we have used the cheek pouch of the hamster as a preparation for the study and photographic recording of blood vessel physiology. During the Second World War, one branch of our armed forces had difficulty with a popular brand of tooth paste and a counter-irritant preparation made by the same company. The A.D. Little research laboratory was employed to investigate the effect of the ingredients in these preparations on small blood vessels. Dr. George P. Fulton, then on the staff of the laboratory, discovered that the membranous cheek pouch of the hamster was an excellent place to study small blood vessels. With the author, also retained by A. D. Little, Inc., the technique and instrumentation for small blood vessel study was developed, and a kodachrome motion picture was made to document the results of the project.

The technique of placing a microelectrode or a micropipette, under the microscope, on a selected cell or nerve fiber and recording the responses in motion pictures opened up a wide field of research. Our laboratory found the cheek pouch to be a unique place to transplant hamster tumors, where they grow freely and symmetrically and can be measured, treated, or photographed daily without undesirable disturbance of the animal. A kodachrome motion picture of the technique, the actual tumors at successive stages, and their growth curves was made under the direction of Dr. Donald I. Patt. Similarly, Dr. Arthur G. Humes has made a motion picture of the capillary net-work enveloping the pork roundworm larva when it encysts in a skeletal muscle fiber in the cheek pouch. A film illustrating the artificial production of white thromboembolism, along with the occurrence of white thrombi resulting from blood vessel injury, infection and tumor growth was made by Dr. Fulton and the author. The effect of cortisone on blood vessels was recorded on film under the direction of Dr. Leland C. Wyman. A film recording the effects of ionizing radiations on blood vessels was made by the author and his associate investigators.

Our latest film, taken at high magnification, shows the manner in which small bleeding spots, or petechiae, are formed. In no other way could such a process be recorded for careful study. Although an expensive procedure, the use of the motion picture has become with us an indispensable means of recording and presentation. Fortunately, the research has received substantial financial support from the Atomic Energy Commission, the United States Public Health Service, and the American Cancer Society.

University Lecture—April 8, 1954

Dr. Edward Wagenknecht, Professor of English, will give the University Lecture, April 8, on the topic, "The Unknown Longfellow."

Boston University Publications—IV

The Philosophical Forum

PETER V. COREA, *Editor*

In the fall of 1942, members of the Boston University Philosophical Club decided to cultivate interest in the spirit and ideas of philosophy and launched a new annual publication, *The Philosophical Forum*. The original issue was not a spectacular or dramatic undertaking. Significant articles and reviews by individuals like Edgar S. Brightman, Albert C. Knudson, Julius S. Bixler, Richard Millard, David Easton, Janette Newhall, and others guaranteed its success. These men and women contributed their efforts, which together with those of the graduate students, achieved the anticipated goal. Over two hundred copies were sold the first year, and enthusiasm began to run high. The total cost of the publication was less than $150; but with the revenue from advertising, University subsidy, and support from the club, there was left a profit of almost thirty dollars.

In the second year, effort was doubled and equally good results were achieved. L. Harold DeWolf, Winfield S. Haycock, John Lavely, and Donald Wells, with a number of others, provided the content for the issue, and over a hundred more copies were sold than in the prior year. Each year since the first, this publication has functioned to share with others the values of philosophy and its method, particularly with reference to Boston University. Its spirit is completely free, and its editors have included many different points of view.

A wide variety of philosophical subjects has been discussed in its pages, including almost every area of philosophic inquiry from the philosophy of history to the defense of liberalism. The great philosophers of history and their impact on the cultural development of mankind have been evaluated by serious students and philosophers.

Many of the contributions have been made by members of the faculty and student body of the Graduate School of Boston University. Peter A. Bertocci and Walter G. Muelder should be added to the list of those already mentioned. Some contributions have been made by distinguished professors (some of whom are former graduate students who have achieved prominence in other colleges and universities) and thus have raised the stature of *The Philosophical Forum*. Among these, to mention only a few, are such thinkers as W. H. Werkmeister, John Wild, Richard N. Bender, Robert N. Beck, Arthur W. Monk, C. J. Ducasse, and Royal M. Frye.

Most of the important new books in the field of philosophy have been reviewed by the staff of *The Philosophical Forum* and by faculty and students of the Graduate School. The publication has earned the interest of publishers of philosophical works by its emphasis on this aspect of philosophical literature. It has been circulated to many of the libraries of the colleges and universities of America, and in a few instances abroad. Its subscription list includes a number of public libraries as well as several hundred philosophers and students of philosophy.

During its ten year history, the *Forum* has had some setbacks. When printing costs were almost doubled and circulation was doubtful, the editor thought of the possibility of discontinuing publication. However,

many friends came to the rescue; and five years later the publication appears to be in good health and to have fulfilled the hope of that editor, showing that "What is worth having is worth working for and paying for."

This publication is serving a useful purpose in the field of philosophy and for the Boston University Graduate School. When Chancellor Daniel L. Marsh was consulted in 1942 as President of the University about the possibility and value of a philosophical journal, he wished the venture success and hoped that it would be a fit and scholarly representative of the university. To his wishes he added the endorsement of the university and its concrete help in the form of a subsidy. Dr. Marsh's interest at that time has been matched by the enthusiasm of a number of others.

The 1954 issue of *The Philosophical Forum*, Volume XII, is designed as a memorial volume dedicated to the late Professor Edgar S. Brightman. He considered the *Forum* the most important activity of the philosophy club, and his interest was one of the greatest factors of its success. A biography of Professor Brightman and a survey of his influence in philosophy, along with an evaluation of his system, will be included.

The editorial and business staff of the *Forum* consists of:
Peter V. Corea, Editor;
Richard Hartman, Circulation Manager;
Robert Harris, Treasurer;
Dale White, Book Review Editor; and
M. Alicia Corea, Business Manager.

Talbert Abrams Award to Dean Macdonald

Dean Duncan E. Macdonald, of the Graduate School, received the Talbert Abrams Award from the American Society of Photogrammetry at the Photogrammetrical Awards Dinner, Thursday, January 14, 1954, in Washington, D. C. The award is made annually for the outstanding paper in the field of photogrammetrical engineering. Dr. Macdonald's paper, "Image Motion in Air Photography," appeared in the December, 1952, issue of *Photogrammetric Engineering*, volume 18, pp. 791-817.

Foreign Students at the Graduate Level

Of the 270 foreign students from 70 countries studying at Boston University during the First Semester of the academic year 1953-1954, 92 from 41 countries were enrolled in Schools and Colleges at the graduate level. The Graduate School had the largest number, 30; School of Theology, 20; School of Medicine, 18; School of Social Work, 5; College of Business Administration, 4; School of Law, 4; School of Music, 4; School of Education, 3; School of Nursing, 3; and School of Public Relations and Communications, 1.

The largest national group in all these Schools and Colleges numbered 8, from India; Nigeria and Germany followed with 6 each. The other countries represented, with the number of students from each, were: Canada, Hawaii, and Japan, with 5 each; British West Indies, China, Latvia, and Norway with 4 each; Thailand, 3; Czechoslovakia, Egypt, Greece, Korea, Philippines, Puerto Rico, with 2 each; and, finally, 1 each from Bahamas, Belgium, Bermuda, Brazil, Cuba, Ethiopia, Finland, Guatemala, Hungary, Indonesia, Iran, Iraq, Jamaica, Lebanon, Lithuania, Malaya, Mexico, Pakistan, Panama, Southern Rhodesia, Switzerland, Trinidad, Turkey, and Uruguay.

Record of Research—XI

The following list of books and articles published recently by members of the University staff or by students was compiled partly from information made available in the offices of the President of the University and of the Dean of the Graduate School, and partly from the *Boston Medical Quarterly*, a publication of the Boston University School of Medicine and the Massachusetts Memorial Hospitals.

Biology

FULTON, GEORGE P., LUTZ, BRENTON R., JOFTES, DAVID L., & MAYNARD, FREDERICK W. "Vascular Effects in the Hamster Cheek Pouch after Irradiation," *Anatomical Record*, 115 (1953), 446-7.

FULTON, GEORGE P., LUTZ, BRENTON R., & PIERCE, DAVID L. "Plasma Dicumarol Levels and Prothrombin Times in the Hamster," *Federation Proceedings*, 12 (1953), 46. Abstract of paper presented at the American Physiological Society, April, 1953.

HARRIS, STUART K. "Birds of Essex County, Massachusetts," Field List, 1952.

———. "Flora of the Summit of Mount Washington," *Mount Washington Observatory News Bulletin*, July, 1953.

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E. S. Brightman Number of the *Personalist*

Readers will be interested to know that the Autumn, 1953, issue of the *Personalist: An International Review of Philosophy, Religion, and Literature* appeared as the "Edgar Sheffield Brightman Number."

The articles honoring Professor Brightman's memory and dealing with his work are: "Brightman: Ex Umbras [*sic*] in Lucem," by Ralph Tyler Flewelling; "The Psychological Nature of Personality," by Gordon W. Allport; "Edgar Sheffield Brightman," by Peter A. Bertocci; "From Bowne's Oldest Living Graduate," by C.A.S. Dwight; "Brightman: Colleague and Friend," by William Ernest Hocking; "Brightman: A Personal Word," by Albert C. Knudson; "Professor Edgar S. Brightman and Latin-American Philosophy," by Francisco Romero; and "Hegelian Influences in Brightman," by Herbert C. Sanborn.